UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,104	07/07/2003	Feihong Chen	29250-001017/US	4241

7590 01/24/2008	EXAMINER
HARNESS, DICKEY & PIERCE, P.L.C. P.O. Box 8910 Reston, VA 20195	RUSSELL, WANDA Z

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2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/613,104	CHEN ET AL.
	Examiner	Art Unit	
	Wanda Z. Russell	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 December 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-18,20-26,29,31-48,51 and 53-56* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7, 9-18, 20-26, 29, 31-48, 51, and 53-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   **Claims 1-7, 9-18, 20-26, 29, 31-48, 51, and 53-56** are rejected under 35

U.S.C. 103(a) as being unpatentable over John Ling Wing So (Pub No. US

2002/0109879 A1), in view of Enoki et al. (Pub No. US 2002/0057691 A1).

Regarding **claim 1**, Wing So substantially discloses a network device (system,

Abstract, line 1) operable to:

by itself generate and send (setup, [0194], line 4) a backward (reverse, [0194],

line 4) path request message ([0194], line 4) to a source of a separately generated,

initial forward path request message associated with a forward Label Switched Path

(LSP) ([0365], line 7) between the device and the source; and

receive ([0194], line 3) a backward path reservation message (setup request,

[0194], line 3) from the source in order to establish a backward LSP between the device

and the source, wherein the separately established forward and backward LSPs form a

bi-directional LSP between the device and the source ([0488], line 3, and [0572], lines

1-3, and 1-9).

However, So fails to specifically teach that the device by itself generates a

backward path request message to a source.

Enoki et al. teach the device by itself generates a backward path request message to a source (referring to Fig. 15, in paragraph [0147], it states that "the LSR 3 transmits a label request message S26 required for the down direction LSP setup to the LSR 2". The down direction is from terminal B to A, see [0143], last 3 lines).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine So with Enoki et al. to obtain the invention as specified, for designating the down direction.

Regarding **claim 2**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 further operable to generate and send an initial, forward path reservation message to the source in order to establish the forward LSP after receiving the initial forward path request message ([0374], lines 4-6, and [0482], lines 1-3).

Regarding **claim 3**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 further operable to generate and send a backward path reservation message ([0194], line 4) to a destination after receiving a backward path request message ([0194], line 3) from the destination in order to establish a backward LSP ([0365], line 7) between the device and the destination (set of nodes, 3rd line from the end).

Regarding **claim 4**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 3). In addition, Wing So discloses the device in claim 3 further operable to separately generate and send a forward path request message to the destination ([0194], lines 1-7) in order to establish a forward LSP ([0365], line 7)

between the device and the destination (set of nodes, 3rd line from the end), wherein the separately established forward and backward LSPs between the device and the destination form a bi-directional LSP between the device and the destination ([0194], lines 1-9, and [0488], lines 1-5).

Regarding **claim 5**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 wherein the forward and backward LSPs between the device and source comprise the same path ([0488], lines 1-5, and [0194], lines 1-9).

Regarding **claim 6**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1, 3, and 4). In addition, Wing So discloses the device as in claim 4 wherein the forward and backward LSPs between the device and destination comprise the same path ([0488], lines 1-5, and [0194], lines 1-9).

Regarding **claim 7**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 further operable to generate the backward path request message ([0264]) based on backward path parameters contained in the initial forward path request message ([0194], lines 1-5).

Regarding **claim 9**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 7). In addition, Wing So discloses the device as in claim 7 further operable to query a local database to obtain routing information in order to generate the backward path request message ([0557], last 4 lines).

Regarding **claim 10**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 7). In addition, Wing So discloses the device as in claim 7 further operable to generate the backward path request message based on a quality-of-service (QoS) ([0297], 4th line from the end) indicator contained within the parameters.

Regarding **claim 11**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 7). In addition, Wing So discloses the device as in claim 7 further operable to generate the backward path request message based on best effort ([0149], last line) routing information when a QoS indicator is not contained within the parameters.

Regarding **claim 12**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 1 and 7). In addition, Wing So discloses the device as in claim 7 wherein the traffic parameters comprise a bi-directional LSP indicator ([0258] and [0264]) and a QoS indicator ([0320], last 3 lines).

Regarding **claim 13**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 further operable to request backward traffic parameters from the source when the initial path request message does not contain such parameters ([0230], and [0231]).

Regarding **claim 14**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 1). In addition, Wing So discloses the device as in claim 1 further operable to generate and send a first delete path message to the source and to

receive a second delete path message from the source in order to delete the bi-

directional LSP ([0615], line 1, and [0568], lines 1-4).

Regarding **claim 15**, Wing So and Enoki et al. disclose everything claimed as

applied above (see claims 1 and 15). In addition, Wing So discloses the device as in

claim 14 further operable to send the first delete path message to the source before

receiving the second delete path message from the source ([0615], line 1, [0570], lines

1-2, and [0572], lines 1-end).

Regarding **claim 16**, Wing So and Enoki et al. disclose everything claimed as

applied above (see claims 1 and 15). In addition, Wing So discloses the device as in

claim 14 further operable to send the first delete path message to the source after

receiving the second delete path message from the source ([0615], line 1, [0570], lines

1-2, and [0572], lines 1-end).

Regarding **claim 17**, Wing So discloses a network device (system, Abstract, line

1) operable to generate independently and send (setup, [0194], line 4) a backward

(reverse, [0194], line 4) path reservation message (setup request, [0194], line 3) to a

destination after receiving a backward path request message from the destination in

order to establish a backward LSP between the device and the destination ([0488], line

3, and [0572] , lines 1-3, and 1-9).

However, So fails to specifically teach that the device by itself generates a

backward path request message to a source.

Enoki et al. teach the device by itself generates a backward path request

message to a source (referring to Fig. 15, in paragraph [0147], it states that "the LSR 3

transmits a label request message S26 required for the down direction LSP setup to the LSR 2". The down direction is from terminal B to A, see [0143], last 3 lines).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine So with Enoki et al. to obtain the invention as specified, for designating the down direction.

Regarding **claim 18**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 17). In addition, Wing So discloses the device as in claim 17 further operable to separately generate and send a forward path request message to the destination in order to establish a forward LSP between the device and the destination, wherein the separately established forward and backward LSPs between the device and the destination form a bi-directional LSP between the device and the destination ([0488], lines 1-5, and [0194], lines 1-9).

Regarding **claim 20**, Wing So and Enoki et al. disclose everything claimed as applied above (see claim 17). In addition, Wing So discloses the device as in claim 17 further operable to generate and send a first delete path message to the destination and to receive a second delete path message from the destination in order to delete the bi-directional LSP ([0615], line 1, and [0568], lines 1-4).

Regarding **claim 21**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 17 and 20). In addition, Wing So discloses the device as in claim 20 further operable to send the first delete path message to the destination before receiving the second delete path message from the destination ([0615], line 1, [0570], lines 1-2, and [0572], lines 1-end).

Regarding **claim 22**, Wing So and Enoki et al. disclose everything claimed as applied above (see claims 17 and 20). In addition, Wing So discloses the as in claim 20 further operable to send the first delete path message to the destination after receiving the second delete path message from the destination ([0615], line 1, [0570], lines 1-2, and [0572], lines 1-end).

Regarding **claims 23-26, 29, 31-44**, they are method (Abstract, line 1) claims of claims 1-22, therefore they are rejected for the same reason above.

Regarding **claims 45-48, 51, and 53-56**, they are means ([0065], line 5) claims of claims 1-22, therefore they are rejected for the same reason above.

Response to Amendment

3.   Applicant's amendment filed December 1, 2007 has been received and considered. Claims 8, 19, 27, 28, 30, 49, 50, and 52 are cancelled. Claims 1, 9, 12, 17, 25, 31, 35, and 53 are amended.

Response to Arguments

4.   Applicant's arguments, filed 12/01/2007, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Enoki et al (Pub No. US 2002/0057691 A1).

5.   Applicant argues that So does not disclose independently generating a backward path claimed in claim 1

In response, Enoki et al disclose independently generating a backward path.

Referring to Fig. 15, in paragraph [0147], it states that "the LSR 3 transmits a label request message S26 required for the down direction LSP setup to the LSR 2". The down direction is from terminal B to A, see [0143], last 3 lines.

Applicant's all other arguments are related to same issue described above for claim 1. In addition, more details are added in the rejection of claim 3 and 4 for the source/destination (set of nodes, [0194], 3rd line from the end).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wanda Z. Russell whose telephone number is (571) 270-1796. The examiner can normally be reached on Monday-Thursday 9:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a
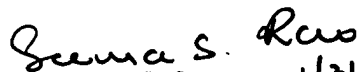
USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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